

Quick Sort

Input :- 157, 110, 147, 122, 111, 149, 151, 141, 123, 112, 117, 133

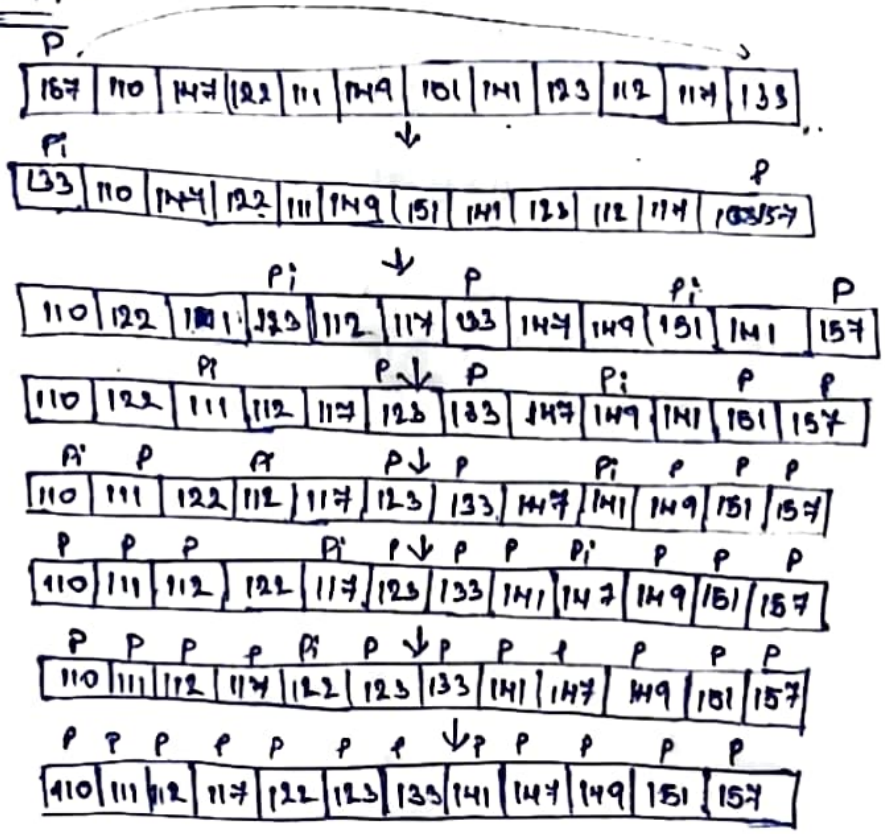
- How many steps does it take to solve based on the token value

Case - 1 :- 157

Case - 2 :- 133

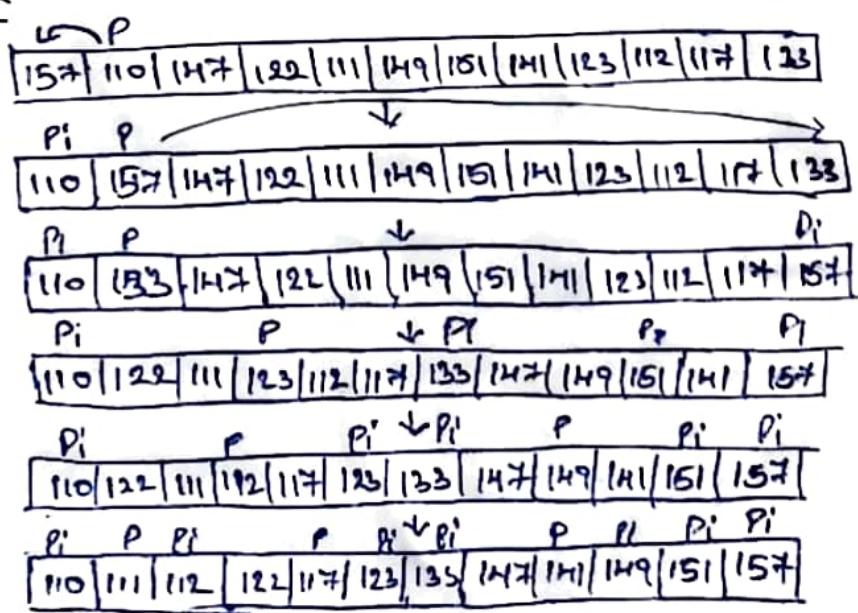
Case - 3 :- 141 [I am choosing this number]

Case - 1 :-



∴ No. of Steps = 8

Case - 2 :-



P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i
110	111	112	117	122	123	133	141	147	149	151	157	

P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i	P_i
110	111	112	117	122	123	133	141	147	149	151	157	

\therefore No. of Steps = 7

Ques 3:-

P
157 110 147 122 111 149 151 141 123 112 117 133

P	P_i	P
110 122 111 123 112 117 133 141 157 147 149 151		

P	P_i	P	P_i	P	P_i	P
110 122 111 112 117 123 133 141 147 149 157 151						

P	P_i	P	P_i	P	P_i	P	P_i	P
110 111 112 117 123 133 141 147 149 151 157								

P_i	P_i	P_i	P	P_i	P_i	P	P_i	P_i	P_i	P_i	P_i
110 111 112 122 117 123 133 141 147 149 151 157											

P_i	P_i	P_i	P	P_i	P_i	P	P_i	P_i	P_i	P_i	P_i
110 111 112 117 122 123 133 141 147 149 151 157											

P_i	P_i	P_i	P_i	P_i	P_i	P	P_i	P_i	P_i	P_i	P_i
110 111 112 117 122 123 133 141 147 149 151 157											

\therefore No. of Steps = 6